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ABSTRACT

The Planning, Monitoring and Implementing (PMI) Evaluation Model for Decision-Making was used by the District of Columbia Public Schools to monitor their Office of Educational Technology in its efforts to provide direction and coordination for computer related activities, and to plan and implement educational television projects in math and science. The target population included 90,000 students in regular programs, special education, career development, and continuing education, and all teachers and administrators. Included are: (1) background and project objectives; (2) a description of the project; (3) the external evaluation design; (4) the program results; and (5) appendices, which contain the evaluation model schema, sample questionnaires, descriptions of television tapes, summaries of questions for science and math teachers on their rating and use of tapes and on their training for the program, a letter to the Board of Education concerning installation of the KU band down satellite receiver and the telecasting of the teacher training projects, documents verifying planning for summer computer camps, and purpose of the software guide. Evaluation findings show that, through the Office of Educational Technology, the two main aspects of educational technology--instructional television and computer related activities--have been advanced, and effective managment practices were demonstrated. (JB)

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PUBLIC SCHOOLS OF THE DISTRICT OF COLUMBIA

EDUCATIONAL TECHNOLOGY

FINAL REPORT

1983-1984

Prepared by
Division of Quality Assurance

1983-1984

EDUCATIONAL TECHNOLOGY

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TABLE OF CONTENTS

	Page
SUMMARY AND FINDINGS	iv
Chapter	
I. BACKGROUND AND PROJECT OBJECTIVES	
Introduction	1
Description of the Project	1
II. EXTERNAL EVALUATION DESIGN - PLANNING, MONITORING AND IMPLEMENTING (PMI) EVALUATION MODEL FOR DECISION-MAKING	3
III. RESULTS	
Narrative	5
PMI Inputs, Processes and Outcomes	
Objective A	9
Objective B	20
Objective C	27
IV. APPENDIXES	
A. Evaluation Model Schema	34
B. National University of the Air, Inc. Course Evaluation Questionnaire	36
C. Sample Pages from the Draft of the TV Annotated Guide With CBC Objectives and Corresponding Descriptions of TV Tapes	40
D. Summaries of Questionnaires for Science and Mathematics Teachers on Their Rating and Use of Tapes and on Their Training for the Program	43

TABLE OF CONTENTS (continued)

Page

IV. APPENDIXES (continued)

E. Letter from the Network for National University of the Air Describing the KU-Band Down-Satellete Receiver Program 50

F. Letter to the Board of Education Concerning Installation of the KU-Band Down Satellite Receiver and the Telecasting of the Teacher Training Projects 55

G. District of Columbia Public Schools Cable Television Position Paper 57

H. Form for DCPS Computer Laboratory Installation Report by Fisher Scientific Company 66

I. Documents Verifying Planning for Summer Computer Camps 72

J. Purpose of the Software Selection Guide (Computer Literacy Catalog of Evaluated Software/Courseware) 78

SUMMARY AND FINDINGS

Title

Educational Technology

Project Coordinating Assistants

Aleta Alsop and Jenelle Leonard

Target Population

90,000 students in regular programs, special education, career development and continuing education; and all teachers and administrators

Background

In 1982, a District of Columbia Public Schools (DCPS) Computer Literacy Planning Group developed the "Computer Literacy Five Year Plan SY 1983-87". The Division of Educational Technology was established to implement the plan and to organize other technologies, partially assisted by 1982-83 ECIA Chapter 2 funds. A director was hired in January, 1983 at which time the program began. Between then and June, 1983, the general administrative duties required for setting up and running an office were accomplished and plans were developed for integrating new and existing programs into the Educational Technology system.

Description of Project

During this first full year of the project, 1983-84, during which time the Educational Technology office expanded to become a division, the emphasis was on computer literacy and educational TV. The plans in computer literacy were to provide direction and coordination for computer related activities, while in instructional television the objective was concerned with planning and/or implementing of educational TV projects.

Stated Objectives

A. By June 30, 1984, the Educational Technology Office will advance instructional television in the DCPS as demonstrated by the planning and implementing of two projects and the preparation for the introduction of a third project.

B. By June 30, 1984, the Educational Technology will have provided direction to and coordination of computer-related activities in the DCPS.

C. By June 30, 1984, effective management practices will have been demonstrated in the Educational Technology Office.

Evaluation

The evaluation follows the Planning, Monitoring, and Implementing (PMI) Evaluation Model for Decision-Making which was developed by the Division of Quality Assurance, District of Columbia Public Schools.

Findings

1. The Instructional Television (ITV) program was planned, developed and implemented with its major goal being the integration of educational TV methods with CBC objectives.

2. The receiver for the KU-Band down satellite receiver program was installed and the telecasting of Teacher Training Projects took place demonstrating linkage of an instructional television site with the National University of the air.

3. A position paper was developed by the Educational Technology office for the use of Cable Television in the DCPS.

4. Computer laboratories were installed in 53 DCPS junior high and middle schools.

5. A system for inventory control of computer software and hardware was updated.

6. Summer Computer Camp plans were developed including a letter to the principals describing the camps, a flyer advertising them and an application form for attendance.

7. Procedures were developed for the purchase, operation and maintenance of technical equipment. For software selection a catalogue was developed to establish the process by which software would be evaluated and selected.

8. Records including letters, memos, reports and interviews showed that the Educational Technology office was operating successfully including coordination of the Library Science Department, the Media Center, the Computer Literacy Training Laboratories, the Writing-to-Read Program and the Junior High School Computer Laboratories.

BACKGROUND AND PROJECT DESCRIPTION

Introduction

Purpose - The purpose of the Educational Technology program is to provide systemwide direction to the application of educational technology in improving instructional programs and services for students, Pre-K through 12th grade.

Need - "The continuing development of new technologies, especially of computers, is revolutionizing American society. The impact of computers spans age, economic, and ethnic lines. In the District of Columbia, with its heavy concentration of white collar industry, computers are used in businesses to manage data and information; as communication devices they link us with the rest of the country and the world. The Federal and District governments, the major local employers, along with their counterparts in the private sector, are now requiring some degree of computer literacy for many positions that are becoming available. Even during times of high unemployment, the local newspapers carry page after page of advertised positions requiring computer skills" (DCPS Computer Literacy Five Year Plan, September, 1982).

The development of other new technologies such as Cable TV and interactive videodisks have had a similar impact. These facts had been recognized by educators throughout the DCPS who were attempting to improve student learning through the acquisition of technological instruments. However, this was being done in a random way, and the need became obvious to study, coordinate, recommend and direct the acquisition and use of these new technologies.

History - In 1982, a Computer Literacy Planning Group was established in DCPS. Resulting from the work of this group was a document entitled "Computer Literacy Five Year Plan SY 1983-87". The program areas covered by the plan were as follows: Instructional Objectives/Instructional Computing, Software, Hardware, Computer Literacy Training Laboratory, Computers and other Interactive Technologies, and Interaction with other Groups. With the advent of ECIA Chapter 2 during the 1982-83 school year, the Educational Technology Project was designated to direct the carrying out much of the plan and to include the use of other technologies. A search began for a qualified director. In January, 1983 the director was hired and the project began. During that half year from January to June, the general administrative duties required for setting up and running an office were accomplished with staff hired, materials and equipment ordered and a management system for educational technology developed.

Description of the Project

Target Population - For the Educational Technology project, the target population consisted of 90,000 students in regular programs, special education, career development and continuing education; and all teachers and administrators.

Staffing - During this first full year of the project, the staff consisted of the Project Director, a secretary and a W.A.E. assistant, with associated personnel such as the director of the computer laboratory, funded out of the regular budget.

Program - The two major thrusts in planning the educational technology program during the 1983-84 school year were in computer literacy and in educational TV. Guidelines for many of the program activities for the computer aspect were included in the Computer Literacy Program Implementation Time Table (the five year plan). For educational TV, plans were to be initiated in 1983-84 for four instructional programs - the Junior High School Science and Mathematics Instructional TV project, the installation of the Ku-Band down receiver, the linkage of an instructional television site with the National University of the Air, and the use of Cable TV. The focus of implementation in the 1983-84 school year was on the junior high school Science and Mathematics Instructional TV project and KU-Band program. While all of these programs were being developed and/or implemented, the Educational Technology division was expanding and it was also necessary to demonstrate effective management practices. The third part of the Educational Technology program included the implementation of procedures for the purchase, operation and maintenance of technical equipment for instruction and classroom management and other general administrative duties.

EXTERNAL EVALUATION DESIGN - PLANNING, MONITORING AND IMPLEMENTING (PMI) EVALUATION MODEL FOR DECISION-MAKING

The evaluation follows the Planning, Monitoring, and Implementing (PMI) Evaluation Model for Decision-Making which was developed by the Division of Quality Assurance, District of Columbia Public Schools. (See Appendix A.) The evaluation design which was developed at the beginning of the project year, consisted of the intended inputs, processes and outcomes on specially designed status report forms. The interim report distributed at the mid-point of the project cycle related, on the status report forms, agreements or discrepancies between intended and observed inputs and processes. This final report includes the interim report data brought up to date, plus the agreements and discrepancies between intended and observed outcomes for each objective. Supporting data are included in the appendix. Preceding the PMI status report forms is the results section which summarizes the agreements and discrepancies for each objective and states a general conclusion.

RESULTS

Evaluation Results - Narrative Summary

The results of the evaluation are summarized in this section. Following the narrative are the inputs, processes and outcomes on which this summary is based presented in the PMI reporting format. Supporting data are in the appendix.

Objective A: By June 30, 1934 the Educational Technology Office will advance instructional television in the DCPS as demonstrated by the planning and implementing of two projects and the preparation for the introduction of a third project.

There was agreement between all intended and observed inputs. Although the project coordinator position was not filled, an acting coordinator performed the duties and responsibilities of the coordinator. Other personnel inputs included the project manager; secretarial staff; supervising directors of Mathematics and Science; two Task Forces (one to help develop a grant proposal and one to select science and mathematics TV lessons); members of the Cable TV Design Commission; and representatives of the National University of the Air and of Howard University WHMM TV station. Other inputs included evaluation forms and other materials, with junior high schools as sites for the ITV program TV equipment, CBC guides, and adequate space for meetings and training.

There were 30 processes leading to three outcomes. The status observed for these processes showed that 27 of them were in agreement with their intended counterparts, one was in partial agreement and two showed discrepancies. Processes in agreement leading to the first outcome were concerned with writing the ITV proposal; selecting participating schools, ordering equipment, selecting TV lessons which complemented the CBC developing a guide, implementing the program and evaluating the tapes. The partial agreement was on training and follow-up. The training began in March and was completed but because of time restraints, the follow-up was not done by June. The first discrepancy was on the production of additional instructional videotapes which was not carried out due to financial limitations. The second discrepancy was the development of at least two sample lesson plans each for mathematics and science using taped lessons matched with CBC ofjectives. This was not completed due to time restraints.

All processes leading to the second outcome, the planning of the KU-Band down receiver and linkage, showed agreement between observed and intended outcomes. These included meeting with representatives of the National University of the Air, installing the KU-Bank down receiver, plan and arrange live and taped inservice programs and collect evaluation data.

Processes leading to the third outcome concerning a position paper on Cable TV also showed agreement for all processes. The Educational Technology staff requested inputs from other school districts, attended meetings of the DC Cable TV commission, provided information to the commission and other related groups, wrote the position paper and submitted it to the DCPS Superintendent for Board approval.

The three outcomes showed agreement between observed and intended items. The Junior High School Science and Mathematics Instructional TV Project was planned, developed and implemented. Plans for the installation of the KU-Band down receiver and the linkage of an instructional television site with the National University of the Air, Inc. Project was developed and implemented. The position paper for the use of Cable Television in the District of Columbia Public Schools was developed. Agreement on all of these outcomes show that Objective A was met.

Objective B: By June 30, 1984, the Educational Technology Office will have provided direction to and coordination of computer-related activities in the DCPS. All additional observed and intended inputs were in agreement. These inputs were related to the computer component, including the Director of the Computer Literacy Training Laboratory, the summer computer camp planners, computer laboratory sites and computer literacy programs. Other inputs were software catalogs, the Writing-to-Read Program (a computer project for young children), an inventory check list and other Educational Technology records.

Of the 11 processes for Objective B, 6 had a status of agreement and 5 showed discrepancies. Two of the discrepancies were related to the hiring and training of 29 educational technology resource personnel. Due to budgetary cuts, the positions, although advertised, were rescinded. The other three discrepancies were related to a questionnaire concerning technical assistance provided. Due to time restraints in the Educational Technology office, these processes were not completed, even though the technical assistance had been provided. The processes that showed the agreement status were the supervision of the installation of computer laboratories in 53 schools, the responding to requests for technical assistance, the inventorying of equipment and recording of computer hardware and software purchases, and the planning and coordinating of the Summer Computers Camps.

Three of the four outcomes showed agreement between the observed and intended items. Records verified that computer laboratories were installed in 53 junior high and middle schools. Records also verified that the system for inventory control of computer literacy software and hardware were updated. Other documents verified that planning for the Summer Computer Camps took place. The discrepancy occurred in the item concerning questionnaire responses about technical assistance provided. Although the questionnaires had not been distributed, the Director of the Computer Laboratory reported that a considerable amount of technical assistance was provided by telephone in the areas of buying software and hardware, running programs, using diagnostics, and calling in a maintenance crew when necessary.

Although one of the outcomes was not fully met, the objective of providing direction to and coordination of computer-related activities in the DCPS was reached as shown by the processes and outcomes described above.

Objective C: By June 30, 1984, effective management practices will have been demonstrated in the Educational Technology Office. All observed inputs for Objective C in addition to those in Objective A, were in agreement with the intended inputs. These included people -the Director of the Computer Literacy Training Laboratory, principals and computer vendors; records - contract specifications, operation manuals, the Five Year Computer Literacy Plan; programs and groups - the Writing-to-Read program, the Minnesota Educational Computer Consortium, corporations in the Corporate Involvement Program, and the Library Media Center; computer labs, and adequate materials, supplies and space.

There were 10 processes for this objective and they were all found to be in agreement with the intended items. The Software Selection Committee was established and assisted the Educational Technology staff in developing guidelines which were used by principals for selecting hardware and software and by the project manager for reviewing such purchases. Vendor compliance was monitored. Membership in the Minnesota Education Computer Consortium was explored but the decision was made not to join. The staff met with groups from the business, engineering and scientific community concerning corporate involvement in the computer literacy program. They exchanged information, attended conferences and provided technical assiatance in proposal writing. The project manager also directed the operations of the Library Science Department, the Media Center, the Computer Literacy Training Laboratories, the Writing-to-Read Program and the Junior High School Computer Laboratories, holding bi-monthly staff meetings at the various program sites with the respective heads of the units.

Both observed outcomes showed the status of agreement with the intended outcomes. Records showed that procedures for the purchase, operation and maintenance of technical equipment for instruction and classroom management had been implemented and that the general administrative duties necessary in operating the Educational Technology Office have been accomplished. Thus, Objective C has been met.

Conclusion

The goal of this project was to provide systemwide direction to the application of educational technology. The evaluation has shown that the two main aspects of educational technology -instruction television and computer-related activities have been advanced through the planning and directing of the Educational Technology office. It has also shown that effective management practices have been demonstrated. With the assumption that these and similar activities and practices will continue to be planned and implemented, it is recommended that future evaluations of the Educational Technology office be directed toward specific units and projects under its jurisdiction.

Decisions

This report will be forwarded to the Project Director, Project Manager, LEA Chapter 2 Director, the Superintendent and the School Board to aid them in their decision-making concerning this project.

FINAL REPORT

PLANNING, MONITORING, AND IMPLEMENTING (PMI)
EVALUATION MODEL FOR DECISION-MAKING

Reporting Form

Goal: To provide systemwide direction to the application of educational technology

Objective A: By June 30, 1984, the Educational Technology Office will advance instructional television in the DCPS as demonstrated by the planning amd implementation of two projects and the preparation for the introduction of a third project.

PART I

INPUTS

INTENDED	STATUS	OBSERVED
a. Project Manager	Agreement	a. The Evaluation Team met with the Project Manager on several occasions.
b. Project Coordinator	Agreement	b. An acting Coordinator, the W.A.E. assistant to the Project Manager, performed the duties and responsibilities of the Project Coordinator.
c. Secretarial staff	Agreement	c. The project had a permanent secretary as observed by the evaluators.
d. Supervising Directors of Mathematics and Science of the DCPS	Agreement	d. There were two Supervising Directors, one of mathematics and one of science as listed in the DCPS Directory. The Supervising Directors operated from the Instructional Services Center.
e. Advisory Task Force including representatives from the	Agreement	e. A roster of members of the Advisory Task Force showed

OBJECTIVE A

PART I (continued)

INPUTS

INTENDED	STATUS	OBSERVED
e. (continued) District of Columbia Public Schools, Howard University's Channel 32 WHMM Television and School of Education, D.C. Congress of Parents and Teachers, National Science Teachers Association, and the National Council of Teachers of Mathematics (Task Force was formerly called the DCPS Mathematics/ Science Instructional TV committee.)	Agreement	e. (continued) representatives from the following: Howard University Channel 32 WHMM Television, Howard University School of Education, - the D.C. Congress of Parents and Teachers, National Science Teacher Association, the National Council of Teachers of Mathematics and the DC Public Schools.
f. Teacher Task Force made up of junior high school science and mathematics teachers	Agreement	f. The Teacher Task Force was made up of science (n=5) and mathematics (n=7) teachers from thirteen junior high schools.
g. D.C. Cable TV Design Commission	Agreement	g. Pamphlets provided by the acting coordinator listed the members of the D.C. Cable TV Design Commission.
h. Representatives of the National University of the Air, Inc.	Agreement	h. Correspondence from the representatives of the National University of the Air, Inc. were examined by the Evaluation Team.
i. Howard University WHMM Television Station	Agreement	i. The Howard University WHMM Television Station is located at Bryant and 4th Streets, NW.
j. Evaluation forms from National University of the Air, Inc.	Agreement	j. A three-part course evaluation questionnaire from the National University of the Air, Inc. was examined. (See Appendix B).

OBJECTIVE A

PART II

PROCESSES †

INTENDED	STATUS	OBSERVED
1.1 Members of the DCPS Mathematics/Science Instructional TV Committee will develop a grant proposal of a pilot project to integrate Educational TV methods with CBC objectives into the 7th grade Mathematics/ Science Instructional Program.	Agreement	1.1 A grant proposal of a pilot project to integrate Educational TV methods with CBC objectives into the seventh grade mathematics and science instructional programs was developed by the members of the DCPS Mathematics/Science Instructional TV Committee as observed by the evaluators.
1.2 The Project Manager will submit the grant proposal to the Department of Education.	Agreement	1.2 The grant proposal was submitted to the Department of Education by the Project Manager on the 29th of July, 1984 as evidenced by the transmittal page.
1.3 The Project Manager will convene the Science and Mathematics Instructional TV Advisory Task Force.	Agreement	1.3 Members of Evaluation Team observed the Project Manager as he convened the Science and Mathematics Instructional TV Advisory Task Force.
1.4 Members of the Advisory Task Force will select eight Junior High Schools (JHS) to participate in the project.	Agreement	1.4 Eight junior high schools were selected by the Task Force to participate in the project as observed at the meeting.
1.5 Members of the Advisory Task Force will conduct a survey to assess the availability of TV receivers, playback machines, and antennae for Junior High Schools.	Agreement	1.5 The acting coordinator reported that the survey was conducted by telephone by the staff of the Media Center in July, 1983.
1.6 The Project Coordinator will order receivers, playback machines and antennae for participating schools not having them.	Agreement	1.6 Requisition forms on file in the Educational Technology office indicate that receivers, playback machines, and antennae have been ordered for participating schools not having them.

† Processes numbered to correspond with outcomes

OBJECTIVE A

PART I (continued)

INPUTS

INTENDED	STATUS	OBSERVED
k. Eight junior high schools	Agreement	k. Sixteen junior high or middle schools were identified as possible sites for the ITV program as observed by the evaluators at the planning meeting. From this group, 8 were selected.
l. TV receivers, playback machines and antennae	Agreement	l. The Evaluation team examined requisitions made of TV receivers, play back machines and antennae. The requisitions were on file in the Educational Technology Office.
m. Competency-Based Curriculum guides in math and science for the seventh grade	Agreement	m. The acting coordinator reported that Competency-Based Curriculum guides in mathematics and science for the seventh grade were available in the junior high schools involved. These guides have been observed in schools by the evaluators.
n. Adequate space for Task Force meetings	Agreement	n. The Advisory Task Force met at the Instructional Services Center as observed by the evaluators. There was adequate space for the meetings.
o. Adequate space and materials for in-service training	Agreement	o. The Acting coordinator reported that there was adequate space and materials for the in-service training sessions held at the Media Center.

OBJECTIVE A

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
1.7 Members of the Teacher Task Force and the Educational Technology staff will select JHS science and mathematics TV lessons which complement the Competency-Based Curriculum objectives for the seventh grade.	Agreement	1.7 The acting coordinator reported that commercially prepared junior high school science and mathematics TV lessons which complement the CBC objectives for the seventh grade were selected by members of the Teacher Task Force. These were examined by the evaluators.
1.8 The Project Coordinator, in collaboration with the supervising directors of science and mathematics and with the assistance of DCPS science and mathematics teachers, will produce instructional TV videotapes in areas where no taped lessons matching CBC objectives are available.	Discrepancy	1.8 The production of instructional TV videotapes in areas where no taped lessons which match the CBC objective was not done, because of financial restraints.
1.9 Participating teachers and the Educational Technology staff will develop the Science and Mathematics TV Guide.	Agreement	1.9 A draft copy of the Science and Mathematics TV Guide was provided to the evaluation team.
1.10 Participating teachers and the Educational Technology staff will develop at least two sample lesson plans for mathematics and science each, using taped lessons matched with CBC objectives.	Discrepancy	1.10 The acting coordinator reported that one lesson each of mathematics and science was developed. The failure to develop two sample lesson plans for each subject area was reported to result from time constraints.

† Processes numbered to correspond with outcomes

OBJECTIVE A

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
1.11 The TV annotated guide and sample lessons will be distributed to project participants for their use.	Agreement	1.11 The draft of the TV annotated guide was completed. The copy was distributed in the spring, 1984 and examined by the evaluators. (See sample pages, Appendix C.)
1.12 The project coordinator will seek legal authorization from film producers to broadcast selected instructional TV lessons.	Agreement	1.12 In response to the request made by the coordinator for legal authorization, film producers submitted letters of authorization. Six of these letters were reported to be on file in the Educational Technology Office. One letter of authorization was examined as a sample.
1.13 The project coordinator will arrange for copies of programs to be made for use with the playback machines.	Agreement	1.13 The acting coordinator reported that three programs have been copied for use with the playback machines. The copying was done at the Media Center.
1.14 The project coordinator will work with Howard University to coordinate the telecast.	Agreement	1.14 Examination of correspondence indicated cooperation with Howard University to coordinate the telecast. Subsequently a decision was made not to continue use of the Howard University facilities because of cost factors.
1.15 The project coordinator will order recorders, playback machines, tapes and antennae.	Agreement	1.15 Examination of requisitions indicated that 14 recorders, 7 TVs, 12 cabinets and antennae were ordered by the acting coordinator.

† Processes numbered to correspond with outcomes

OBJECTIVE A

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
1.16 Project teachers will complete initial training on the JHS program, with follow-up training throughout the year.	Partial Agreement	1.16 Plans for the training of teachers were completed. Training began on March 2, 1984, as evidenced by the agenda on file in the Educational Technology office. Because of time constraints, follow-up was not done by June.
1.17 Project teachers in the 8 pilot Junior High Schools will implement the components of an instructional TV program either at the specified time (10:00 - 11:00 am) or by using the playback machine.	Agreement	1.17 Components were implemented by using playback machines as evidenced by completed evaluation forms.
1.18 Project teachers will complete an evaluation questionnaire.	Agreement	1.18 JHS Teachers completed an evaluation questionnaire as evidenced by results submitted to the Evaluation Unit.
2.1 The Project Manager will meet with the representatives of the National University of the Air (NUA) to discuss the feasibility of installing the KU-Band down receiver.	Agreement	2.1 Meetings were held with NUA during the summer. Subsequently the KU-Band down receiver was installed between September 30 through October 3, 1983. The program was in operation from October 3, through the 13, 1983 at McKinley High School.
2.2 The Project Manager will coordinate and supervise the installation of the KU-Band down receiver in cooperation with NUA.	Agreement	2.2 The project manager verified that he coordinated and supervised the installation of the KU-Band down receiver in cooperation with NUA.

† Processes numbered to correspond with outcomes

OBJECTIVE A

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
2.3 The project coordinator will coordinate the teacher in-service program in math, art education, gifted/ talented and health education.	Agreement	2.3 Records on file including flyers and sign-in sheets indicate that the acting coordinator coordinated the teacher in-service program in mathematics, art education, gifted/talented and health education.
2.4 The project coordinator will arrange for in-service programs to be taped.	Agreement	2.4 All programs for the four subject areas were taped. These were observed in the Educational Technology Office.
2.5 The project coordinator will arrange for copies of tapes of programs to be made for future use by teachers.	Agreement	2.5 The project coordinator reported that arrangements were made with the Media Center to make copies of the tapes available to teachers.
2.6 The project coordinator and staff will collect evaluation data on teacher participants who are using the KU-Band programs.	Agreement	2.6 The evaluation team observed completed evaluation forms from teachers using the KU-Band programs. There were three sets of completed forms for mathematics, gifted/talented and health. A summary of the responses has been provided by the acting coordinator.
3. The Educational Technology staff will do the following:		
3.1 Request input from other school districts in drafting a position paper on Cable TV.	Agreement	3.1 The evaluation team examined letters sent to Baltimore, Spokane, Irvine, Montgomery and Arlington County requesting input for the design of a position paper on Cable TV.

† Processes numbered to correspond with outcomes

OBJECTIVE A

PART II (continued)

PROCESSES †

	INTENDED	STATUS		OBSERVED
3.2	Develop a position paper which will provide input to the D.C. Cable Television Design Commission;	Agreement	3.2	A position paper designed to provide input to the D.C. Cable Television Design Commission was completed on September 2, 1983. This paper was on file in the Educational Technology Office.
3.3	Attend meetings of the D.C. Cable TV Design Commission to find possibilities of instructional TV grants and the reservation of Channels for the DCPS;	Agreement	3.3	The coordinator reported that the manager had attended meetings to find possibilities of instructional TV grants and the reservation of channels for the DCPS.
3.4	Brief the Chairperson of the Council of the D.C. Committee on Public Services and CABLE TV in preparation for the hearings on CABLE TV;	Agreement	3.4	During October, 1983 the Project Manager attended a meeting with the Chairperson of the City Council of the D.C. Committee on Public Services and Cable TV. At the meeting, the Chairperson was briefed on the proposed request for Cable TV.
3.5	Testify at the hearing of the D. C. City Council on CABLE TV for the DCPS;	Agreement	3.5	The project manager attended the meeting of the D.C. City Council on Cable TV on September 7, 1983, where he provided a briefing on the proposed request for the reservation of channels for the DCPS.
3.6	Submit the DCPS CABLE TV position paper to the Superintendent for Board approval.	Agreement	3.6	The DCPS Cable TV position paper was submitted to the Superintendent for Board approval. A letter of transmittal dated September 13, 1983 was sent by the Superintendent to the Board.

† Processes numbered to correspond with outcomes

OBJECTIVE A

PART III

OUTCOMES

INTENDED	STATUS	OBSERVED
1. By June 1984, records submitted to the ECIA Chapter 2 Evaluation Project by the Project Coordinator will show that the Junior High School Science and Mathematics Instructional TV Project will have been planned, developed and implemented.	Agreement	1. Planning of the ITV program was verified by one of the evaluators who served on the Mathematics/Science Instructional TV Committee established to develop a grant proposal to integrate educational TV methods with CBC Objectives. Subsequent to the submission of the proposal, the project was developed, including selecting TV lessons, developing a guide, and training teachers, all of which are documented through records on file. Implementation was verified by the results of the teacher questionnaires for Science and Mathematics teachers in which participants rated the ITV tapes (most were considered above average); responded on how they used the tapes (most were used as a secondary medium of instruction); and on the overall impact of the program (good on both the instructional process and on student learning.) Training was also rated and was generally considered to be above average. (See Appendix D for summary prepared by the acting coordinator.)

OBJECTIVE A

PART III (continued)

OUTCOMES

INTENDED	STATUS	OBSERVED
2. By June 1984, records submitted to the ECIA Chapter 2 Evaluation Project by the Project Coordinator will show that plans for the installation of the KU-Band down receiver and the linkage of an instructional television site with the National University of the Air, Inc. Project will have been developed and implemented.	Agreement	2. As may be seen in Appendix E (a letter from the Network for National University of the Air describing the KU-Band down-satellite receiver program) and in Appendix F (a letter to the Board of Education concerning installation of the receiver and telecasting of the Teacher Training Projects), and as verified by evaluation responses from participants, the plans for this aspect of instructional television were developed and implemented.
3. By June 1984, documents submitted to the ECIA Chapter 2 Evaluation Project by the Project Manager will show that a position paper will have been developed for the use of Cable Television in the District of Columbia Public Schools.	Agreement	3. A position paper was developed by the Educational Technology office for the use of Cable Television in the DCPS, a copy of which is reproduced in Appendix G.

FINAL REPORT

PLANNING, MONITORING, AND IMPLEMENTATION (PMI)
EVALUATION MODEL FOR DECISION-MAKING

Reporting Form

Goal: To provide systemwide direction to the application of educational technology

Objective B: By June 30, 1984, the Educational Technology Office will have provided direction to and coordination of computer-related activities in the DCPS.

PART I

INPUTS

INTENDED	STATUS	OBSERVED
Inputs "a-c" are the same as in Objective A. Please see page 1.		
d. Director of the Computer Literacy Training Laboratory	Agreement	d. Members of the Evaluation Unit met with the Director of the Computer Literacy Training Lab at the laboratory site.
e. Summer Computer Camp planners	Agreement	e. The Director of the Computer Literacy Training lab stated that she coordinated the planning of the Summer Computer Camp. Two additional planners were identified in the summer and they became summer school coordinators as listed on the enrollment sheets.
f. Computer laboratory sites	Agreement	f. A total of 53 computer labs were planned. The school sites were identified.

OBJECTIVE B

PART I (continued)

INPUTS

INTENDED	STATUS	
g. Computer literacy programs	Agreement	g. The Director of the Computer Literacy Training (CLT) lab reported that the computer literacy program offered (a) computer literacy courses for school personnel and, (b) an integration of computer literacy with the regular school system curriculum.
h. Software catalogs	Agreement	h. The evaluation team examined the software catalogs on file in the Computer Literacy Training lab.
i. Writing-to-Read Program	Agreement	i. A Writing-to-Read Program was installed and was operating under the direction of the project manager as observed by the Evaluation Team.
j. Inventory checklist	Agreement	j. An inventory checklist has been devised by the Evaluation Unit with assistance from the Educational Technology staff.
k. Educational Technology records	Agreement	k. Records of purchases of equipment and materials were examined by the evaluation team.

OBJECTIVE B

PART II

PROCESSES †

INTENDED	STATUS	OBSERVED
1.1 The Educational Technology staff will hire 29 educational technology resource personnel for the computer laboratories.	Discrepancy	1.1 The position of educational technology resource personnel for the computer laboratories was advertised. There were few qualified applicants (10 interviewed) and most of them were from core content areas within the DC public schools. Transferring them might have disrupted the instructional program. However, as a result of budgetary cuts all positions were rescinded before any decisions were made.
1.2 The Educational Technology staff will provide in-service training for resource personnel.	Discrepancy	1.2 Training did not occur since resource persons were not hired.
1.3 The Educational Technology staff will supervise the installation of computer laboratories in fifty-three schools.	Agreement	1.3 The Director of the CLT labs supervised the installation of the computer labs. Fifty three labs were installed in junior high schools; senior high schools; career development centers and educational centers housing 7th, 8th, and 9th grade students; special education and adult education centers, with 52 being operational during the school year. Among the activities performed were disseminating of the security policy statement in September, 1983; checking with principals for room security and space; acting

† Processes numbered to correspond with outcomes

OBJECTIVE B

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
1.3 (continued)		1.3 (continued) as laison between vendor and school district; generating forms for moving equipment from warehouse to the schools; setting up installation dates and notifying vendors of readiness for electrical wiring. For the 200 Digitals (Pro 350) housed in central administrative offices, schools and regional offices, the Director of the CLT lab made on-site visits and supervised the upgrading of the system.
2.1 The Educational Technology staff will respond to requests from computer literacy programs for technical assistance.	Agreement	2.1 The Director, CLT lab, reported that a considerable amount of technical assistance was provided over the telephone in the following areas: buying hardware and software; explaining how to run certain programs; providing diagnostics when the computer was down or inoperative; and when necessary calling in a maintenance crew.
2.2 With the help of the ECIA Chapter 2 Evaluation Unit, the Educational Technology staff will design and distribute a questionnaire to evaluate the technical assistance provided.	Discrepancy	2.2 The draft was completed by the Evaluation Unit but the questionnaire was not completed or distributed due to time restraints in the Educational Technology office.

OBJECTIVE B

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
2.3 Coordinators of Chapter 1, Ballou Senior High School, the Bilingual Education Computer Literacy Programs, and others who have requested technical assistance will complete an evaluation questionnaire.	Discrepancy	2.3 The instrument was not completed. See 2.2 on previous page.
3.1 The Educational Technology staff will distribute a checklist to determine a baseline inventory of educational technology equipment.	Agreement	3.1 Inventories were distributed in May. Evaluators examined completed forms.
3.2 The Educational Technology staff will record all purchases of computer hardware and software in the DCPS.	Agreement	3.2 The educational technology staff recorded all purchases of computer hardware and software as evidenced by the Site Installation Reports for junior high schools.
3.3 The Educational Technology staff will combine results of inventory questionnaire and record of new purchases to determine total inventory.	Discrepancy	3.3 Data from the inventory had not yet been analyzed as of the fall of 1984.
4.1 Summer Computer Camp planners will submit plans to the Educational Technology staff.	Agreement	4.1 The Director of the CLT lab submitted a proposal on the Summer Computer Camp to the Program Manager, as examined by evaluators.
4.2 The Educational Technology staff will coordinate the planning of the Summer Computer Camps.	Agreement	4.2 The Director of the CLT lab coordinated the planning of the Summer Computer Camp as evidenced by the completed proposal.

† Processes numbered to correspond with outcomes

OBJECTIVE B

PART III

OUTCOMES

INTENDED	STATUS	OBSERVED
1. Inventory records will show that computer laboratories will have been installed in fifty-three schools with seventh, eighth and ninth graders.	Agreement	1. Records examined by the evaluators, showed folders for all (53) of the sites where computer laboratories have been installed. The two records verifying installation were the Service Order forms with a section where the word Installation, was written; and the DCPS Computer Laboratory Installation Project Per Site Installation Report by Fisher Scientific Company. (See Appendix H.)
2. Analysis of questionnaire responses by coordinators will show that technical assistance will have been provided to Chapter 1, Ballou Senior High School Computer Center, Bilingual Education Computer Literacy Programs and others as requested.	Discrepancy	2. The questionnaire was not distributed due to time restraints.
3. Records will show that the inventory control system for computer literacy software and hardware will have been updated.	Agreement	3. Maintenance logs are kept by the schools. The Lab Report Sheets (Appendix H) were used for inventory control. After the warehouse made deliveries, if there was an out-of-box failure, the laboratory director would send the defective parts back. Thus, she had the most up-to-date inventory of software and hardware.

OBJECTIVE B

PART III (continued)

OUTCOMES

INTENDED	STATUS	OBSERVED
4. Documents will show that a plan will have been developed for Summer Computer Camps.	Agreement	4. Appendix I includes documents verifying planning for the Summer Computer Camps. Included are a letter to principals describing the camps, a flyer advertising the camps, and an application form to attend them.

FINAL REPORT

PLANNING, MONITORING, AND IMPLEMENTING (PMI)
EVALUATION MODEL FOR DECISION-MAKING

Reporting Form

Goal: To provide systemwide direction to the application of educational technology

Objective C: By June 30, 1984, effective management practices will have been demonstrated in the Educational Technology Office.

PART I

INPUTS

INTENDED	STATUS	OBSERVED
Inputs "a-c" are the same as in Objective A. Please see Page 1.		
d. Director of the Computer Literacy Training Laboratory	Agreement	d. Members of the Evaluation Unit met with the Director of the Computer Literacy Training Lab at the laboratory site.
e. Principals	Agreement	e. A principal is identified in each of the school sites with computers.
f. Computer vendors	Agreement	f. Computer vendors represent such companies as IBM, and Fisher Corporation, with their material on file in the Educational Technology office and the computer laboratory.
g. Computer contract specifications	Agreement	g. Computer Contract Specifications were detailed in the Five Year Computer Literacy Plan, Volume III.
h. Operation manuals from vendors	Agreement	h. Operation manuals were provided by all companies from which computers were purchased. The evaluation team examined the manuals from Fisher Scientific and Digital.

OBJECTIVE C

PART I (continued)

INPUTS

INTENDED	STATUS	OBSERVED
i. Five-year Computer Literacy Plan	Agreement	i. A copy of the Five Year Computer Literacy Plan was provided to the Evaluation Team by the Office of Program Development.
j. Writing-to-Read Program	Agreement	j. The evaluation team discussed aspects of the program with project personnel.
k. Minnesota Education Computer Consortium (MECC)	Agreement	k. Records of correspondence and reports of MECC in "Personal Computer" describe the activities of the consortium.
l. Corporations in the Corporate Involvement Program	Agreement	l. The program manager identified major corporations such as IBM.
m. Library Science Department	Agreement	m. The evaluation team visited the Library Science Department.
n. Media Center	Agreement	n. The evaluation team visited the Media Center.
o. Computer Literacy Training Laboratory	Agreement	o. The evaluation team visited the Computer Literacy Training Laboratory.
p. Junior High School Computer laboratories	Agreement	p. The project manager reported that computer laboratories are in all junior high schools with seventh, eighth and ninth grades.
q. Adequate materials and supplies	Agreement	q. The acting coordinator reported that there was adequate space and materials. For the installation of computers, companies have specified space requirements which have been met.

OBJECTIVE C

PART I (continued)

INPUTS

INTENDED	STATUS	OBSERVED
r. Adequate office space	Agreement	r. The acting coordinator reported that at the present time the office space was quite adequate but with additional staff and responsibilities, insufficient space could be a problem.

OBJECTIVE C

PART II

PROCESSES †

INTENDED	STATUS	OBSERVED
1.1 The Educational Technology staff will establish a Software Selection Committee.	Agreement	1.1 The software selection committee was established as verified by the Computer Literacy Catalog of Evaluated software/courseware.
1.2 With input from the Software Selection Committee, the Educational Technology staff will develop software selection guidelines.	Agreement	1.2 Software selection guidelines are stated in the Computer Literacy Catalog, a copy of which is on file in the Evaluation Unit office.
1.3 Principals will select hardware and software using established guidelines.	Agreement	1.3 Each principal had an allotment of $500 with which to select software using the purchase order form in the catalog. Evaluators examined completed forms.
1.4 The project manager will follow procedural guidelines for review and evaluation and will approve the purchase of hardware and software.	Agreement	1.4 Procedural guidelines were followed. For example, the Director of the CLT lab was observed by the evaluators at a meeting with IBM reviewing and evaluating the IBM materials with consideration for purchase.
1.5 The Project Manager will monitor vendor compliance with contract specifications for computer literacy programs.	Agreement	1.5 The evaluation team examined correspondence with Fisher Scientific which specified the kinds of services provided.
1.6 The Project Manager will explore membership in the Minnesota Education Computer Consortium.	Agreement	1.6 The Director of the CLT lab reported that she had met with MECC and consulted with them about membership in the consortium. The decision was made not to join MECC for two reasons: (1.) MECC made an organizational decision

† Processes numbered to correspond with outcomes

OBJECTIVE C

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
2.3 Provide technical assistance to district personnel in areas such as writing proposals;	Agreement	2.3 The project manager verified that he provided technical assistance in proposal writing to the Division of Safety and Security; Bilingual Education Office; Commodore Computers Matching Funds Project; and the National Urban League Grant of Xerox 820-II Computer for education.
2.4 Direct the operations of the Library Science Department, Media Center, Computer Literacy Training Laboratories Writing-To-Read Program and Junior High School Computer Laboratories.	Agreement	2.4 In directing the operations of the Library Science Department, Media Center, Computer Literacy Training Laboratories, Writing-To-Read Program and Junior High School Computer Laboratories, the project Manager stated that he held bi-monthly staff meetings at the various program sites with the respective heads of the units.

† Processes numbered to correspond with outcomes

OBJECTIVE C

PART II (continued)

PROCESSES †

INTENDED	STATUS	OBSERVED
1.6 (continued)		1.6 (continued) against a licensing agreement for the Commodore software; and, (2.) the MECC software did not run on the DCPS networking configuration.
The Project Manager and staff will do the following:		
2.1 Perform general and special administrative duties including seeking corporate involvement in the computer literacy program and evaluating conformance with the Five Year Computer Literacy Plan;	Agreement	2.1 The Assistant Director of the CLT lab stated that she had met with groups from the business, engineering and scientific community to determine how they could help with the computer labs and other areas such as Science Fair.
2.2 Exchange information concerning educational technology including sharing and receiving ideas from other school districts, attending professional conferences, and promoting computer literacy and other educational technology programs;	Agreement	2.2 The evaluation team examined letters showing requests for information to which the project personnel had responded. The project manager had attended the conference on Writing-to-Read in Atlanta; the NIE conference on computers in Utah; the Educational Technology Study group which met from February 12 through 15th, 1984; and the panel on computers at the University of Maryland on February 10, 1984.

OBJECTIVE C

PART III

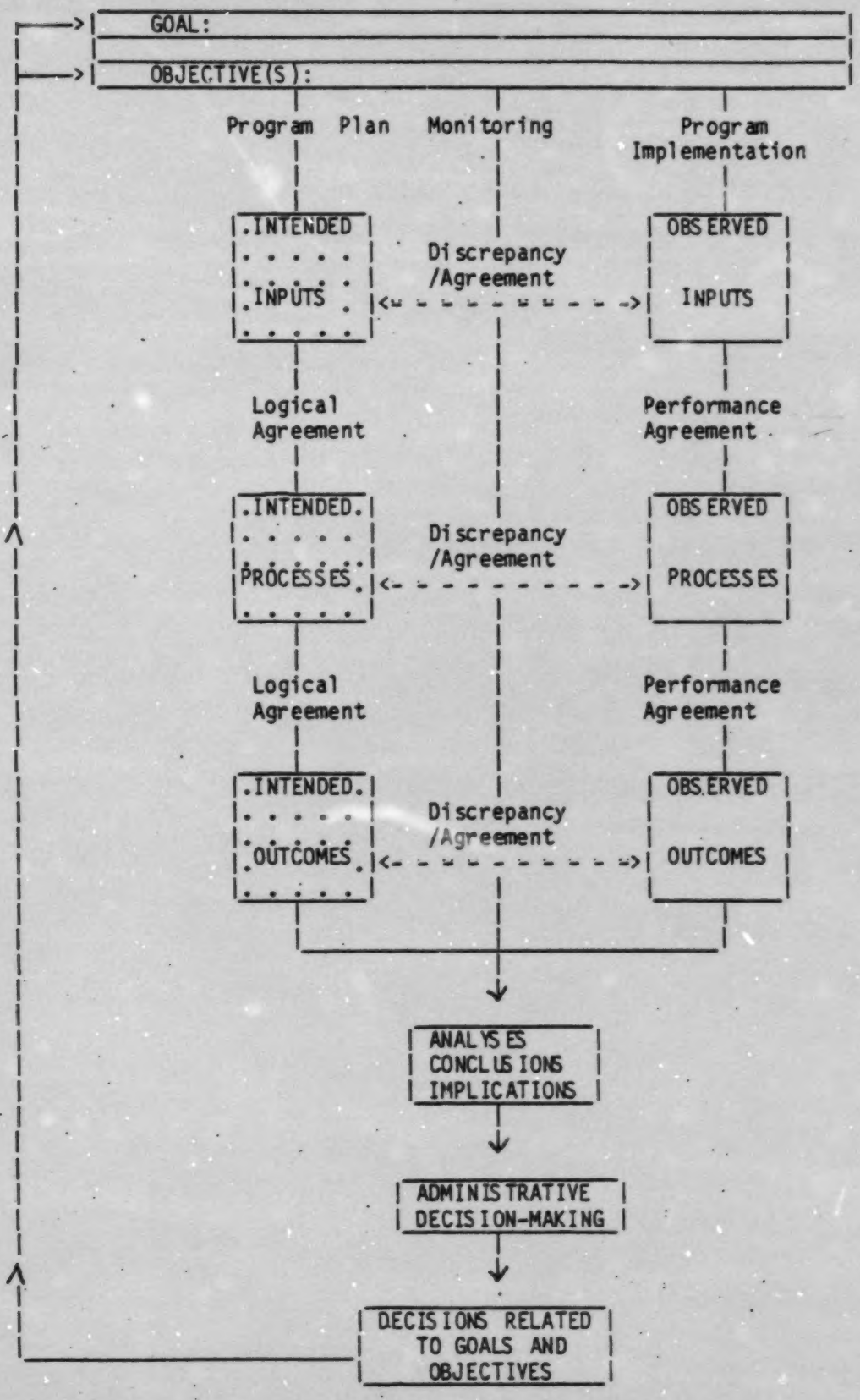
OUTCOMES

INTENDED	STATUS	OBSERVED
1. Records will show that procedures for the purchase, operation, and maintainance of technological equipment for instruction and classroom management will have been implemented.	Agreement	1. As described in Objective B, procedures concerning hardware equipment were in operation. For software selection, a catalogue was developed with the help of a software review Committee. Appendix J shows the purpose of the guide as being to establish the process by which software would be evaluated and to set standards for its approval, selection and recommendation in the DCPS.
2. Records will show that the general administrative duties necessary in operating the Educational Technology Office will have been accomplished.	Agreement	2. Records, including letters, memos, reports and interviews showed that the Educational Technology office established contact with the corporate community, exchanged information concerning technology, provided technical assistance in educational technology and directed the operation of the Library Science Department, the Media Center, the Computer Literacy Training Laboratories, the Writing-to-Read Program and the Junior High School Computer Laboratories.

APPENDIX A

EVALUATION MODEL SCHEMA

EVALUATION MODEL SCHEMA



APPENDIX B

NATIONAL UNIVERSITY OF THE AIR, INC.
COURSE EVALUATION QUESTIONNAIRE

National University of the Air, Inc.
Course Evaluation Questionnaire

Receive Site: _____

Your overall evaluation of this course is important to determining the effectiveness and impact of delivering inservice education through interactive telecommunications. Please give our candid opinions to each of the following questions. Thank you for your time and cooperation in completing this form.

Please circle the response which best reflects your opinion of each item by using the following rating scale:

SA Strongly Agree — You strongly agree with the statement as it applies to this course.

A Agree — You agree more than you disagree with this statement as it applies to this course.

D Disagree — You disagree more than you agree with the statement as it applies to this course

SD Strongly Disagree — You strongly disagree with the statement as it applies to this course.

NA Not Applicable or Don't Know — You simply are not able to give a knowledgeable response to the statement.

Part I: Course Questions

1. This course was relevant to my needs.	SA	A	D	SD	NA
2. Generally speaking, class discussions during the course were valuable.	SA	A	D	SD	NA
3. My interest in the subject has been stimulated by this course.	SA	A	D	SD	NA
4. The course subject matter was not suitable for TV.	SA	A	D	SD	NA
5. The posttest reflected course objectives and content.	SA	A	D	SD	NA
6. The scope of the course was too limited; not enough material was covered.	SA	A	D	SD	NA
7. There has been too much overlap of content.	SA	A	D	SD	NA
8. There has been too much redundancy of content.	SA	A	D	SD	NA

9. In my opinion, this course has increased by ability to work with children. SA A D SD NA

Part II: Telecommunications Questions

1. Compared to traditional instruction (face-to-face), I find it more difficult to pay attention and concentrate when receiving televised instruction. SA A D SD NA

2. I would choose interactive television over the traditional course format for inservice education. SA A D SD NA

3. When the TV camera was at my site, I felt uncomfortable asking questions or responding to the instructor. SA A D SD NA

4. The television format holds real promise as a training device. SA A D SD NA

5. The visual/audio reception was of satisfactory quality. SA A D SD NA

6. I would have learned more from the course if I had had personal, face-to-face contact with the instructors. SA A D SD NA

Part III: Please check the response which best reflects your opinion.

1. I would rate the overall value of this course to me as follows:

( ) Excellent
( ) Good
( ) Satisfactory
( ) Fair
( ) Poor

2. Compared to other inservice courses, rate the effect of this course.

( ) One of the most effective (among the top 10%)

( ) More effective than most (among the top 30%)

( ) About average

( ) Not as effective as most (in the lowest 30%)

( ) One of the least effective (in the lowest 10%)

3. Actively in the past month, have you used suggestions and activities as demonstrated in this course while working with students?

( ) Often (more than five times a week)

( ) Somewhat (one to five times a week)

( ) Seldom (less than once a week)

( ) Not at all

( ) Not applicable

4. So far this year, how successful would you say the suggestions offered in this course have been?

( ) Wholly unsuccessful

( ) Several have been somewhat successful

( ) Several have been quite successful

( ) Almost all have succeeded

( ) Not applicable

5. Did the telecommunications system present any unusual problems?

( ) No

( ) Yes Please specify: _____

_____

_____

PLEASE WRITE ANY OTHER COMMENTS WHICH MIGHT HELP US IN OUR FUTURE PLANNING.

(Use back, if necessary) specifically, what topics or strategies discussed during the course were of <u>most help</u> and <u>least help</u> to you?

APPENDIX C

SAMPLE PAGES FROM THE DRAFT OF THE
TV ANNOTATED GUIDE WITH CBC OBJECTIVES
AND CORRESPONDING DESCRIPTIONS OF TV TAPES

CBC OBJECTIVE

FP7-1. The student will identify and construct pictorial representatives of fractions.

FRACTIONS I

Therapy for "fraction phobia" includes building meanings for the terms "numerator", "denominator" and congruent." Examples of two types of fractions -"how much" and "how many" -are demonstrated. (15 minutes)

FRACTIONS II

B.J. Toddy recounts the tale of a friend's inheritance to show the relationship between numerator and denominator in fractions. Coins are used to demonstrate equivalence. (15 minutes)

EQUIVALENT FRACTIONS

Cutting half a slice of watermelon into any number of equal parts does not change the amount of watermelon in the original slice. Utilization of the denominator and the numerator is considered in the demonstration. (11 minutes)

COMMON FRACTIONS

Addition and subtraction of like and unlike fractions, and expressing answers in the simplest forms is demonstrated. (20 minutes)

FP7-2. The student will express an improper fraction as a whole number or a mixed number and express a mixed number as an "improper fraction".

COMMON FRACTIONS

Addition and subtraction of like and unlike fractions, and expressing answers in the simplest forms is demonstrated. (20 minutes)

ADDING WITH FRACTIONS

Shows how to compute the sum of two rational numbers expressed in fractions. (10 minutes)

FP7-3. The student will compare the values of fractions and use the symbols $>, <$ and $=$ to show their relationship.

BETWEEN RATIONAL NUMBERS

Converting fractions to equivalent fractions having the same denominator helps in finding "in-between" numbers. (11 minutes)

COMMON FRACTIONS

Addition and subtraction of like and unlike fractions and expressing answers in the simplest forms in demonstrated. (20 minutes)

IDV-1. Given an experimental situation, identify the variables which would influence the results of the experiment.

EXPERIMENTING

Describes how experimentation is used to test an inference. States how predictions can be made based on experimentation. A scientist and a student demonstrate the steps in an experiment. (14 minutes)

TESTING THE HYPOTHESIS

Scientific hypotheses don't gain much respect until they've been tested. Some can be tested experimentally, others only through the weight of evidence. Pasteur's classic experiment relating to spontaneous generation illustrate the former and the mass of evidence supporting theories of evolution illustrate the latter. (13 minutes)

CL-1. Describe a given group of substances as solids, liquids, or gases.

THE BEHAVIOR OF MATTER

Describes the states of matter. (15 minutes)

CL-10. Identify physical characteristics which can be used to classify microscopic organisms, as bacteria, protozoa or fungi.

AMEOBIA: SINGLE CELLED ORGANISM

Shows structure of behavior of one celled animals. (14 minutes)

CO-13. Identify similarities and differences in plant and animal cells.

LIVING AND NON-LIVING THINGS

What are the differences between things that are alive and things that are not alive? This film surveys a variety of plants, animals, and other objects in order to answer this question - and we observe that all living things must grow, reproduce, heal, move, have cells, use energy and respond to the world around them. (11 minutes)

CO-16. Describe three ways that living things adapt to changes in their environment.

BIRDS AND MIGRATION

Shows the movement of birds due to environmental changes. (18 minutes)

APPENDIX D

SUMMARIES OF QUESTIONNAIRES FOR SCIENCE AND MATHEMATICS TEACHERS ON THEIR RATING AND USE OF TAPES AND ON THEIR TRAINING FOR THE PROGRAM

District of Columbia Public Schools

Division of Educational Technology
Instructional Television Program

Questionnaire for Science Teachers

School _____ Number of Students in Your ITV Program Class _____

1. Listed below are the ITV tapes. Indicate in the designated column whether you have used or not used the tapes. On the scale provided, rate the tapes used. For all tapes used, comment on their usefulness. For tapes not used, please state your reasons for not using them in the column designated for comments.

Tape	Used		Rating						Comments
			Excellent				Poor	No	
	Yes	No	5	4	3	2	1	Ans.	
A Look at Chemical Change	3	4	-	3	-	-	-	1	This is an excellent tape for objectives in the scope & sequence for grade 7.
Ameoba: Single-Celled Organism Animal Population	3	4	1	1	1	-	-	1	
Behavior of Matter	5	2	1	4	-	-	-	1	Perfect for review prior to final examination.
Buds and Migration	2	4	-	1	1	-	-	2	Used as an enrichment tool.
Birth: How Life Begins	6	2	1	1	2	1	-	-	Used to increase pupils' awareness of other life forms.
Canines: Pets and Predators	3	4	2	-	1	-	-	1	Provided students with an awareness of other life forms.
Clouds and Precipitation	3	3	2	-	1	-	-	2	Provided a review of the weather objectives.
Explaining Matter: Chemical Change	3	5	1	1	1	-	-	-	Gave students a background on writing up in proper manner, experiments.
Experimenting	4	2	1	3	-	-	-	2	Students now have a better understanding of forming hypothesis.
Forming Hypothesis	3	2	-	3	-	-	-	3	
Heat and Circulation	2	4	1	-	1	-	-	2	This tape was used for enrichment purposes.
How Ideas Change	3	4	-	1	-	-	-	1	

Tape	Used		Rating						Comments
			Excellent				Poor	No	
	Yes	No	5	4	3	2	1	Ans.	
Introducing Chemistry: Formula and Equations	2	5	1	1	-	-	-	1	We used this tape as a review and it helped to shed light on some of the things I had thought were taught well.
Introduction to Electricity	3	3	-	-	3	-	-	2	
Living and Non-Living Things	2	5	1	1	-	-	-	1	As enrichment material.
Male and Female in Plants and Animals	2	5	-	1	1	-	-	1	
Matter and Molecular Theory	3	4	1	1	1	-	-	1	As an object for review.
Measuring	3	3	1	-	2	-	-	2	Excellent for grade 7.
Our Dynamic Planet	3	3	1	-	1	1	-	2	
Our Ocean of Air	2	5	-	-	1	-	-	1	For follow-up on weather.
Science and Superstition	3	4	-	3	-	-	-	1	Used as a review for material taught earlier.
Solutions	2	5	-	1	1	-	-	1	Perfect for objectives in CBC.
States of Matter	4	3	-	2	1	-	-	1	Children were enthused because I had taught this.
Testing the Hypothesis	3	3	-	2	-	-	1	2	Very good.
Understanding Storms	2	4	1	-	1	-	-	2	Good for unit and objectives in guide (CBC).
Weather: Understanding Precipitation	2	4	1	-	1	-	-	2	Provided an excellent means for review.
Winds, Weather and Air Masses	2	3	1	-	1	-	-	3	

General Comments:

- Tapes not used because they arrived too late.
- Tapes not used because they were blank or did not work.
- Would like to see a better multi-ethnic mix among "actors". Especially, those who are relevant to the teenage audience in terms of hair, style, dress, etc.

District of Columbia Public Schools

Division of Educational Technology
Instructional Television Program

Questionnaire for Mathematics Teachers

School _____ Number of Students in Your ITV Program Class: _____

1. Listed below are the ITV tapes. Indicate in the designated column whether you have used or not used the tapes. On the scale provided, rate the tapes used. For all tapes used, comment on their usefulness. For tapes not used, please state your reasons for not using them in the column designated for comments.

Tape	Used		Rating						Comments
			Excellent				Poor	No	
	Yes	No	5	4	3	2	1	Ans.	
Fractions I	7	5	4	2	1	-	-	3	Good introduction to fractions. Did an adequate job.
Fractions II	6	5	3	2	1	-	-	4	Illustrates relationship between num. & dem. Good for demon.
Equivalent Fractions	5	6	3	1	1	-	-	4	Good demonstration after the idea has been presented.
Common Fractions	4	6	2	-	2	-	-	5	
Adding with Fractions	2	7	-	1	1	-	-	6	
Between Rational Numbers	2	8	-	2	-	-	-	5	
Comparing Rational Numbers	4	7	-	4	-	-	-	4	Excellent for "thinking" students.
Shortcuts in Multiplying with Fractions	5	7	1	1	2	-	-	3	Shows a need for this short cut in the business world as well as in the classroom. Good for "rote" learners.
Shortcuts in Multiplying with Fractions (Distributing)	4	6	-	4	-	-	-	5	Good for "rote" learners
Reciprocals: Multiplicative Inverse	2	8	-	1	-	-	-	5	Very enjoyable.

Tape	Used		Rating (Excellent 5 4 3 2 1 Poor)					No Ans.	Comments
	Yes	No	5	4	3	2	1		
Adding with mixed Numbers	2	8	-	2	-	-	-	5	Students appeared to understand the concepts but did not return it.
Equivalance Classes in Addition	2	8	-	2	-	-	-	5	Good introduction.
Subtracting with Fractions	2	7	-	2	-	-	-	6	Best for reinforcement.
Substracting with Mixed Numbers	3	8	1	1	-	-	-	4	Best for enforcement.
Ratio and Proportions	5	7	1	4	-	-	-	3	Very well done.
Decimal Equivalent for Fractions	1	9	-	1	-	-	-	5	
Decimal Names for Rational Numbers Rounding	1	9	-	1	-	-	-	5	
The Remainder in Division	1	9	-	1	-	-	-	5	
Dividing with Decimals	1	9	1	1	-	-	-	5	
The Decimal Point	1	9	-	-	1	-	-	5	
Scientific Notation	4	7	-	2	1	-	-	4	

2. Which of the following procedures best describe how you used the ITV tapes.

1 as the main instructional unit for selected CBC objectives

16 as a secondary medium of instruction to reinforce skill areas taught using CBC

6 as an introductory unit of advance organizer

2 other: (please specify) Use as a review

No Answer - 6

3. Rate the following on the scale provided.

	Rating					
	Excellent				Poor	No
	5	4	3	2	1	Ans.
(a) access to equipment	12	2	2	1	-	6
(b) adequacy of number of tapes provided	4	5	4	1	2	7
(c) review and planning time for use of the tapes	3	5	6	-	2	7

4. What is the overall impact of the ITV program?

(a) on your instructional process: Good - students are interested - reinforcement adds spice to the lesson - too early to evaluate.

(b) on student learning: Good - reinforcement - concepts explained better - need time to plan lessons - students like it - new way of instructing.

5. Recommendations for changes in program:

° More equipment.
° More tapes.
° Staff development time for review.
° Workable machines.
° Receive tapes earlier.
° Up-Grade materials.
° Train teachers in the use of equipment.
° Planning for use of the equipment.

6. Comments about the ITV program:

° Excellent
° Expand the program.
° Consider developing lesson plans and teacher guides.

Section B - Training for Use of ITV Program.

1. How would you rate the training on the following factors?

	Rating					
	Excellent				Poor	No
	5	4	3	2	1	Ans.
Structure and Organization						
a. training objectives	9	7	1			4
b. clarity of presentation	7	8	2			4
c. clarity of information provided on use of the ITV program	6	6	4			5
Content and Materials						
d. scope of content coverage	2	11	2	1		5
e. quality of content or information provided	6	9	1			5
f. usefulness of information presented	7	7	2			5
g. usefulness of materials provided	7	8	1			5

2. Comments about the training session: Adequate time provided - more time for training.

060684

Prepared by
Division of Quality Assurance

APPENDIX E

LETTER FROM THE NETWORK FOR NATIONAL UNIVERSITY
OF THE AIR DESCRIBING THE KU-BAND
DOWN-SATELLITE RECEIVER PROGRAM

NUA, INC.

THE NETWORK FOR NATIONAL UNIVERSITY OF THE AIR

OFFICE OF
PRESIDENT
REGIS BUILDING
SIXTH AVENUE, NW
ATLANTA, GA 30332
(404) 894-3393

September 9, 1983

Dr. Floretta D. McKenzie, Superintendent
District of Columbia Public School System
415 12th Street, NW
Washington, DC 20004

Dear Dr. McKenzie:

The mathematics demonstration project, consisting of sixteen hours of in-service teacher training material, will begin October 3, 1983. I am ready to work with you with respect to the organization of the project at the receiving site.

Perhaps I should begin by summarizing the basic objectives of the demonstration project. These are as follows:

1. To conduct an experiment which explores national delivery of educational material using a communications satellite, and with the experiment based on the following conditions:

   (a) live, real-time delivery across four time zones
   (b) one-way video, two-way audio (telephone line return)
   (c) one receiving site (participating location) in Virginia, Atlanta, Dallas, San Diego, Los Angeles, and Washington, D.C.
   (d) the delivery of educational material designed to fill some of the needs in the nation's secondary schools.
   (e) the selection of teachers in certain specialized disciplines as participants in the experiment, with in-service training as the goal.

2. To test two different material preparation modes, as follows:

   (a) The use of in-service training material for teachers of the gifted, using material developed, used, tested, and evaluated previously through the CENTEX network
   (b) the development and use, for the first time, of in-service training material for teachers of mathematics, using the mathematics faculty resources of the Georgia Institute of Technology.

3. To evaluate, using experts not connected with CENTEX, NUA, or Georgia Tech, the effectiveness of the experiment, with a thorough analysis of the problems encountered.

4. To develop a plan for national distribution, on a continuing basis, of in-service training material for teachers and the delivery of course material to secondary school students in mathematics, science, and special education.

Early in the planning for the demonstration project it was clear that in Virginia, Texas, and California existing local distribution networks were already in place, and that, if desired, these networks could be used to distribute the test material into many schools. However, for the purposes of the demonstration project, it is very important that we have one receiving location, with perhaps 3-8 participants, working with us in real time. Using an 800 telephone number, the real time participants can become active partners in the experiment and the faculty member delivering the material can utilize the medium to the fullest extent by verbally interacting with the participants.

The delivery of the material elsewhere throughout the local distribution network is a bonus that you may wish to take advantage of, even though audio return to the originating studio will not be feasible. However, local distribution will not add new knowledge to the experiment because it is well-established that educational material can be disseminated through ITFS and cable networks. Therefore, in my humble opinion, we must keep in mind the principal system features being tested in the experiment, as enumerated in item 1 above.

I realize completely that the delivery hours for this experiment will not fit teachers' schedules. However, please indicate to those working with you in selecting the participants the following special conditions:

1. This is a national experiment of short duration.

2. The mathematics material has been designed so that as many as four different groups may participate, with each group committed to only four hours (2 days at 2 hours each day). As shown on the attached mathematics course syllabus, the material has been divided into four blocks, each four hours long. The blocks stand alone so that a teacher may participate in one or more blocks, according to their wishes.

3. Georgia Tech will award Continuing Education Unit (CEU) credit to the participants. The school systems involved should be asked to provide in-service credit to their own participants (the Atlanta City School System has already agreed to do so).

4. The participants will be taking part in a national experiment, the outcome of which will be a crucial element in determining whether operational funding can be found. The potential for improving instruction in mathematics, science, and special education in the nation's 21,000 secondary schools is very great. Those who take part in, and contribute to, the demonstration project have a unique contribution to make.

I hope that the superintendents will be willing to release at least a small group of mathematics teachers to participate in the experiment.

As shown in the mathematics syllabus, the material starts with algebra, followed by trigonometry, analytic geometry, and probabilistic methods. Please emphasize that participants should not expect a complete in-service training course in only four hours. Instead, they will help us lay the groundwork so that in a year or two we will be able to deliver complete, comprehensive in-service training packages.

The author of the mathematics material is Dr. James Herod, Professor of Mathematics, Georgia Institute of Technology. He is experienced in the video delivery of regularly-scheduled mathematics courses.

The in-service training material for teachers of the gifted deals with curriculum development for gifted students and teaching strategies for gifted students. The authors are as follows:

Ms. Joan Byrne
Coordinator of Gifted and Talented Education
York County Public Schools
Yorktown, VA

Dr. Abraham J. Tannenbaum
Professor of Education
Columbia University
New York, NY

Dr. Donald LaSalle, Director
Talcott Mountain Science Center
Connecticut

Mr. Irving Sato, Director
National/State Leadership
Training Institute on the Gifted and Talented
California

Dr. Dorothy Sisk, Professor
Exceptional Child Education
University of South Florida
Tampa, Florida

Additional details and suggestions for the special education portion of the experiment will be sent to you from Williamburg.

I am excited about the challenge of this project and hope you feel the same way. Please call me at (404) 894-3385 at any time we need to talk.

Sincerely yours,

Bill Lnenicka

W. J. Lnenicka
President, NUA

/bj

encl.

APPENDIX F

LETTER TO THE BOARD OF EDUCATION CONCERNING INSTALLATION OF THE KU-BAND DOWN - SATELLITE RECEIVER AND THE TELECASTING OF THE TEACHER TRAINING PROJECTS

DISTRICT OF COLUMBIA PUBLIC SCHOOLS
OFFICE OF THE SUPERINTENDENT

PRESIDENTIAL BUILDING
415 12TH STREET, N.W.
WASHINGTON, D.C. 20004

UPERINTENDENT

(202) 724-4222

September 30, 1983

To the Board of Education
of the District of Columbia

Ladies and Gentlemen:

SUBJECT: The National University of the Air Satellite In-Service Teacher Training Project

We are pleased to inform you that under our agreement with the National University of the Air (NUA), the Ku-Band down-satellite receiver is currently being installed at the McKinley Senior High School.

The first telecasting of the NUA Teacher Training Project will be Monday, October 3, 1983 at the McKinley High School 2nd and T Streets, N.E. in the Library Theatre Room.

Programs will be televised October 3-13, 1983:

- 2:00-4:00 PM - In-Service Teacher Training in the areas of the Gifted and Talented and Special Education
- 4:00-6:00 PM - Mathematics Demonstration Project In-Service Teacher Training

Enclosed please find the NUA Satellite Telecasting Schedule and Content. Please feel free to join us for these programs at your convenience. Thank you.

Respectfully submitted,

Floretta Dukes McKenzie
Superintendent of Schools
Chief State School Officer

Enclosure

APPENDIX G

DISTRICT OF COLUMBIA PUBLIC SCHOOLS
CABLE TELEVISION POSITION PAPER

September 2, 1983

DISTRICT OF COLUMBIA PUBLIC SCHOOLS
CABLE TELEVISION POSITION PAPER

I. INTRODUCTION

On June 30, 1982, the Council of the District of Columbia enacted the "Cable Television Communications Act of 1981" (D.C. Law 4-142) that will result in the granting of one or more cable franchises in the District of Columbia.

In view of this recent event and the tremendous interest in the area of cable television, many implications exist for the involvement of our Public Schools.

One of the issues concerning the utilization of cable television is its suitability and sensitivity to what needs to be done in the future.

The purpose of this paper is to outline the District of Columbia Public Schools requirements for eligible cable television companies to serve the public education sector of the city.

This paper will be submitted to the City Council of the District of Columbia, the District of Columbia Cable Television Design Commission and other interested parties.

In preparation of this position paper numerous school systems have been contacted. Particular attention was given to the following school systems.

1. Montgomery County Public Schools
2. Baltimore City Public Schools

3. Arlington Public Schools

4. Spokane Public Schools , Spokane, Washington

5. Irvine Unified School District, Irvine, California

The reasons for contacting the above school systems are as follows:

1. three school systems in the District of Columbia area, because we may be working with them.
2. Spokane Public Schools and the Irvine Unified School District, because of their exemplary cable television programs.

The mission of the District of Columbia Public Schools is "...to promote excellence by providing a viable and comprehensive instructional program (pre-kindergarten through twelfth grade) leading to the attainment of knowledge, competencies and skills which upon completion will enable each student to function as a useful citizen." While the mission of the school system need not change, the strategies used to successfully accomplish the mission must be updated.

The District of Columbia Public Schools have daily contact with approximately 90,000 students and 6,000 staff members. If a group such as parents is added, the District of Columbia Public Schools via cable television have the potential of reaching 200,000 to 250,000 people. We hope to provide educational services to this target population.

The continuing development of new technology, especially of cable television-related disciplines and computers, is revolutionizing American society. The impact of cable

television spans age, economic and ethnic lines. Linking public schools to cable television has very exciting implications. However, in order for cable television to impact positively on education, it must be carefully planned and coordinated with the existing curriculum. Cable television provides the opportunity to:

1. Serve large audiences at one time,
2. Offer a variety of subjects simultaneously,
3. Offer new subject areas such as foreign language for elementary students,
4. Feature enrichment programs such as SAT preparation,
5. Allow master teachers to use the established curriculum to produce video tapes for instruction that will be shown to large groups of students simultaneously,
6. Instruct homebound, disabled and aged students who normally do not have access to the classroom,
7. Share stated meetings of the Board of Education and Board Committees,
8. Provide interactive potential to homes and interactive capability within, between and among schools,
9. Access information resources beyond the physical limits of school sites,
10. Disseminate guidance and counseling information throughout the community,
11. Conduct in-service teacher training for large groups systemwide without staff members leaving their individual schools and,

12. Establish and maintain good school community relations.

II. RECOMMENDATIONS

In view of the research and the needs identified, we are making the following recommendations:

1. A cable television drop should be installed in each of the District of Columbia Public Schools.
2. Each classroom should be wired to receive cable television lessons.
3. The cable connection should be provided from cable television headquarters to the telecasting studio of the District of Columbia Public Schools.
4. The two-way system should provide interactive potential to homes and interactive capability within, between and among institutions.
5. The District of Columbia Public Schools should be linked to area colleges and universities, the National University of the Air, the Public Library, a television studio, The National Science Foundation and The Smithsonian Institution.
6. The cable system should have the capacity for closed-captioning.
7. The cable system should be flexible enough to allow interconnection with current and future video technologies as well as having the ability to tie in with other forms of technology such as computers.
8. The cable operator should be required to provide

whatever training is necessary to allow institutions and the public to have full access to the capabilities of the system.

9. The cable company should provide technical assistance for the duration of the franchise contract on at least three levels: central (head-end), area (live origination points) and local (institutions).
10. Cable television-related job training for career education students, adult and continuing education students and senior high school students should be provided with an added commitment to hire the students who complete the training program.
11. Five channels should be provided for instruction to our students:
    a. One channel for pre-kindergarten through grade 3.
    b. One channel for the intermediate level (4-6 grades).
    c. One channel for the junior high level.
    d. One channel for the senior high level including Vocational and Career Education.
    e. One channel for Adult and Continuing Education and Bilingual Education.
12. In order to get maximum use from cable television, we are proposing that these channels be used for teacher training, Adult and Continuing Education, Alternative Education and Community Education after school hours.

13. The instructional programs should focus on, but not be limited to the following subjects:

A. Basic Skills
   - o Mathematics
   - o Reading
   - o Writing
   - o Science
   - o Computer Literacy

B. Career Education
   - o Guidance
   - o Job Training

C. Special Education

D. Foreign Language and Bilingual Education

E. Adult Education and Staff Development
   - o GED Instruction
   - o Demonstration Teaching

F. The Humanities
   - o Art
   - o Music

G. Others
   - o PSAT Preparation
   - o SAT Preparation
   - o Current Events

FUNDING

14. The cable company should provide equipment (recording units, editing units, monitors and converters)

equivalent to $1,000,000 per year to the District of Columbia Public Schools for three to five years.

15. The cable company should maintain the equipment throughout the life of the franchise and should replace equipment as specified by the District of Columbia Public Schools or its designee within sixty days of such specification. In the event the cable company does not maintain and/or replace equipment within sixty days, the cable company will be charged $2000 per day as a penalty.

16. The cable company should award to the District of Columbia Public Schools a $900,000 grant for the development of instructional television programs within two years of the award of the contract.

17. The cable company should provide to the District of Columbia Public Schools a $500,000 research grant which shall be used to research the impact of cable television on instructional programs.

18. In the event the cable company does not wire classrooms, the cable company should award to the DCPS $450,000, ($25,000 per school).

SAFEGUARD

19. After Council approves these recommendations, there should be provisions to safeguard against default of the cable television contract. It is recommended that

severe penalties be imposed if a breech of contract occurs.

REPRESENTATION

20. Since the District of Columbia Public School System remains without representation on the Design Commission, it is imperative that the District of Columbia Public School System be represented by two Board Members and the Assistant Superintendent for Educational Technology. (While the present recommendation is made in the context of this position paper, it should be noted that a similar recommendation was made by Board Member-At-Large Eugene Kinlow on April 6, 1982 in a formal request to the City Council.)

21. When the Mayor and the City Council appoint the Public Access Board Members, it is imperative that the District of Columbia Public School System be represented by two Board Members and the Assistant Superintendent for Educational Technology.

22. It is strongly recommended that the District of Columbia Public School System have representation on the panel that reviews the cable television franchise applications, including the Chairperson of the Finance Committee, Chairperson of the Educational Programs Committee and the Assistant Superintendent for Educational Technology.

APPENDIX H

FORM FOR DCPS COMPUTER LABORATORY
INSTALLATION REPORT BY
FISHER SCIENTIFIC COMPANY

- Typed Copy of Original -

District of Columbia Public Schools
Computer Laboratory Insallation Project
Per Site Installation Report
by
Fisher Scientific Company
Educational Materials Division
Chicago, Illinois

I. SITE INFORMATION

School _____
Address _____
Phone _____

II. EQUIPMENT ITEMIZATION

Hardware

Item	Qty	Serial Numbers	Verification (by DCPS Personnel
Commodore Model 64 Microcomputers	10		
Commodore Model 4040 Dual Floppy Disk Drive			
Commodore Model 1702 Color Monitor	10		
Video Cables	10		

Item	Qty	Serial Numbers	Verification (by DCPS Personnel
Hayes Model "Smartmodem 1200"	1		
Commodore Model 8023P Printer	1		
CMD "Mupet II" Network Controller	1		
"Mupet" Network Modules	10		
Commodore PET to IEEE Cable	1		
Commodore IEEE to IEEE Cable	1		
Commodore Model C2N Cassette Recorder	1		
30" X 42" X 27" Ergonomic Workstation	1		
24" X 30" X 27" Printer Stand	1		
18" X 36" X 27" Ergonomic Workstations	9		
KE Tri-class (ABC) Fire Extinguisher	1		

Item	Qty	Serial Numbers	Verification (by DCPS Personnel
RS232 to RS232 Cable	1		
Disk Head Cleaner	1		
Ribbon Cartridges	4		
91/2"X 11" Paper	1		
11" X 15" Paper	1		
Security Organizers	10		
Other			

Software

Item	Qty	Serial Numbers	Verification (by DCPS Personnel

Expendables

Item	Qty	Serial Numbers	Verification (by DCPS Personnel

Handicapped Materials

Item	Qty	Serial Numbers	Verification (by DCPS Personnel

III - LABORATORY PERSONNEL

A. DCPS Personnel in charge of Laboratory: _____

This person will be designated as the Fisher Scientific Company - DCPS contact for this site.

B. Training Received by this Person:

Dates
Length
Type
Conducted by: _____

Need for Additional Training in Laboratory System Operation: _____

C. Service Procedures for Site Personnel

Procedures Defined: _____

Procedures Posted: _____

IV. Site Approval

The above equipment has been received/installed in the _____

_____ as listed in Section II of this report and
Name of site

is operating to specifications. In addition, the listed software and/or computer supplies have been received at this site.

_____	_____
Name of DCPS Site Personnel	Name of Fisher Scientific Personnel
_____	_____
Position	Position
_____	_____
Signature Date	Signature Date

APPENDIX I

DOCUMENTS VERIFYING PLANNING FOR SUMMER COMPUTER CAMPS

Office of Instruction

Division of Educational Technology

415 12th Street, N.W. Washington, D.C. 20004

DISTRICT OF COLUMBIA PUBLIC SCHOOLS
Computer Literacy Training Laboratory
Takoma School
Piney Branch Road & Dahlia Street, N.W.
Washington, D.C. 20012
Route 2 - Telephone 576-7938

May 21, 1984

MEMORANDUM TO: Principals, Program Coordinators, and Directors

THROUGH: Dr. James T. Guines
Associate Superintendent
Office of Instruction

THROUGH: Dr. Kyo R. Jhin
Assistant Superintendent
Educational Technology

FROM: Jenelle V. Leonard
Assistant Director
Computer Literacy Training Laboratory

RE: In-City Summer Computer Camp

This year the District of Columbia Public Schools will once again host In-City Summer Computer Camps under the Computer Literacy Training Laboratory. This program is designed to provide our inner city youth the opportunity to attend a computer camp with no added expense to the parent(s) or guardian(s) and learn introductory programming skills in BASIC or Logo. In the process, the students will have fun learning to operate computers and run computer software. More importantly, the students will achieve and master various levels of Computer Literacy skills.

All students who are residents of the District of Columbia, and who are being promoted to grades 4 - 9, are eligible to attend. The In-City Summer Computer Camps will run nine-day cycles. The cycles will run as follows:

Cycle I - July 2 - 13, 1984
Cycle II - July 17 - 27, 1984
Cycle III - July 31 - August 10, 1984

Time: 9:00 - 12:00 noon daily

REGION A	REGION B	REGION C	REGION D
Douglass	Deal	Backus	Brent
Jefferson	MacFarland	Garnet Patterson	Eliot
Moten	Takoma	Brookland	Fletcher Johnson
Terrell JHS		Langley	River Terrace
			Sousa
			Winston

SPECIAL EDUCATION

Ft. Lincoln Sp. Ed.
Hamilton Sp. Ed.

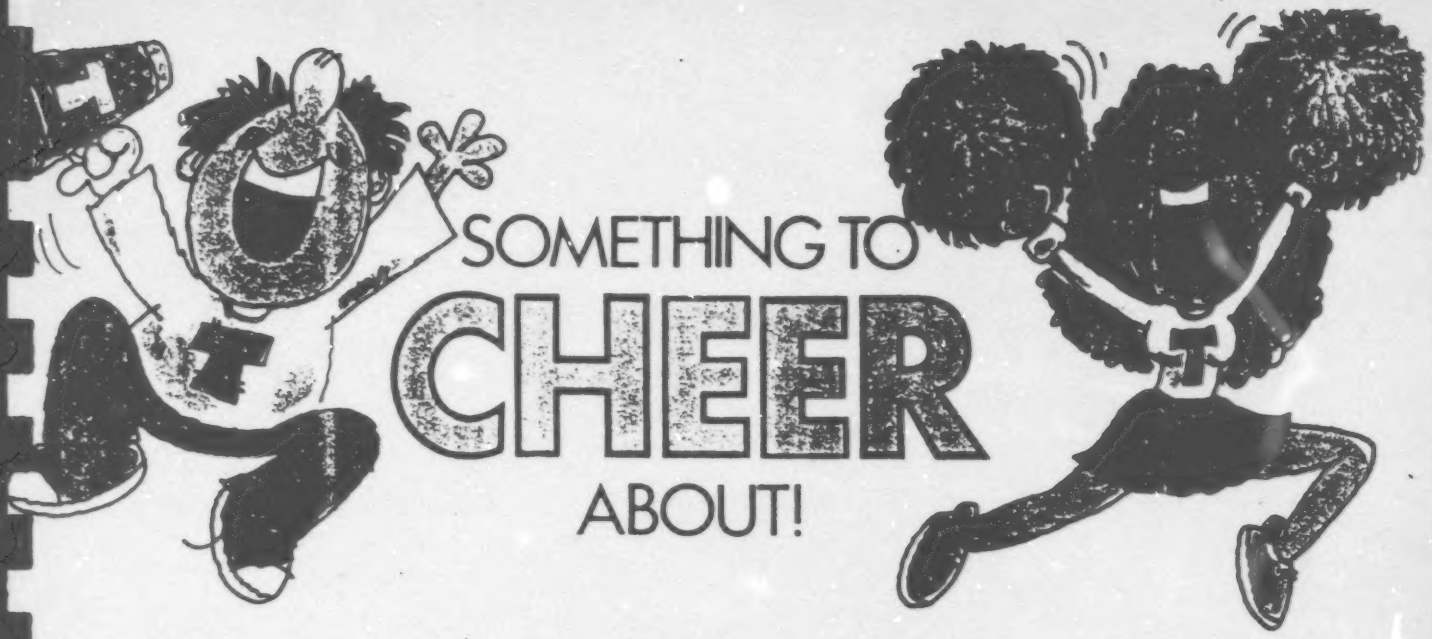
Attached are application forms for the Computer Camp. Please announce and make forms available to students being promoted to grades 4 - 9. Duplicate additional appplication forms as needed. Students and parents should be advised to ENROLL EARLY BY RETURNING VIA U.S. MAIL THE SELF-ADDRESSED APPLICATION FORM. ALL APPLICATIONS WILL BE PROCESSED ON A FIRST COME, FIRST SERVE BASIS because of limited enrollment at each site. A letter of confirmation will be mailed to the student's home address prior to each cycle.

If you have any questions or need additional information, please call the Computer Literacy Training Laboratory at 576-7938.

Thank you in advance for your continued support and assistance in this matter.

Attachment

Approved: _____
Dr. Andrew E. Jenkins, III
Deputy Superintendent



DISTRICT OF COLUMBIA PUBLIC SCHOOLS
Computer Literacy Training Laboratory
Takoma School
Piney Branch Road & Dahlia St., N.W.
Washington, D.C. 20012

SUMMER, 1984

IN-CITY SUMMER COMPUTER CAMP

Sessions will meet for nine (9) half days from 9:00a.m. - 12 noon daily.

Cycle I	Cycle II	Cycle III
July 2 - 13, 1984	July 17 - 27, 1984	July 31 - August 10, 1984

CAMP SITES

REGION A	REGION B	REGION C	REGION D
Douglass	Deal	Backus	Brent
Jefferson	MacFarland	Brookland	Eliot
Moten M.S.	Takoma	Garnet Patterson	Fletcher Johnson
Terrell, R.H.		Langley	River Terrace
			Sousa
			Winston

SPECIAL EDUCATION

Ft. Lincoln Sp. Ed.
Hamilton Sp. Ed.

DISTRICT OF COLUMBIA PUBLIC SCHOOLS
COMPUTER LITERACY TRAINING LABORATORY
TAKOMA SCHOOL
PINEY BRANCH ROAD AND DAHLIA STREET, N.W.
WASHINGTON, D.C. 20012
TELEPHONE 576-7938

FOR OFFICE USE ONLY
NUMBER _____
DATE REC'D _____
CODE _____ STATUS _____
LTR. OF CONFIRMATION _____

SUMMER, 1984
APPLICATION FOR IN-CITY SUMMER COMPUTER CAMP

PLEASE READ BOTH SIDES OF THIS APPLICATION CAREFULLY

STUDENT NAME _____
LAST FIRST MIDDLE

ADDRESS _____ ZIP CODE _____

HOME PHONE _____ EMERGENCY NUMBER _____

PARENT/GUARDIAN(S) _____ DAY PHONE _____

HOME SCHOOL _____ GRADE _____

STATEMENT OF PARENTAL AGREEMENT AND CONSENT

We, the parent(s)/guardian(s) of _____ agree to provide transportation to and from Computer Camp. I fully understand that my child may arrive 15 minutes before the start of each session and must be PICKED UP PROMPTLY after the end of each session. No meals or snacks will be provided. My child has my/our consent to attend the In-City Summer Computer Camp.

_____ _____
PARENT(S)/GUARDIAN(S) SIGNATURE DATE

COMPUTER CAMP SESSIONS

The In-City Computer Camp will consist of 9 half-day morning sessions. The morning sessions are scheduled from 9:00 a.m. until 12:00 noon daily. Enroll EARLY!! Complete this SELF-ADDRESSED application and return by U.S. Mail. NOTICE!!! FIRST COME, FIRST SERVED. A letter of confirmation will be mailed to the student's home address.

(OVER FOR MORE INFORMATION DETAILS)

IN-CITY SUMMER COMPUTER CAMP SITES

REGION A	REGION B	REGION C	REGION D
Douglass	Deal	Backus	Brent
Jefferson	Macfarland	Brookland	Eliot
Moten M.S.	Takoma	Garnet Patterson	Fletcher Johnson
Terrell, R.H.		Langley	River Terrace
			Sousa
			Winston

SPECIAL EDUCATION

Ft. Lincoln Sp. Ed.
Hamilton Sp. Ed.

FOLD ALONG THIS LINE

COMPUTER CAMP DATES

CYCLE I (July 2, 1984 - July 13, 1984
CYCLE II (July 17, 1984 - July 27, 1984)
CYCLE III (July 31, 1984 - August 10, 1984)

INDICATE FIRST, SECOND, AND THIRD CHOICES:

1ST CHOICE	2ND CHOICE	3RD CHOICE
CYCLE_____	CYCLE_____	CYCLE_____
SITE/SCHOOL_____	SITE/SCHOOL_____	SITE/SCHOOL_____

FOLD ALONG THIS LINE

COMPUTER LITERACY TRAINING LABORATORY
PINEY BRANCH RD. & DAHLIA ST., N.W.
WASHINGTON, D.C. 20012

MAIL TO:

COMPUTER LITERACY TRAINING LABORATORY
PINEY BRANCH RD. & DAHLIA ST., N.W.
WASHINGTON, D.C. 20012

APPENDIX J

PURPOSE OF THE SOFTWARE SELECTION GUIDE (COMPUTER LITERACY CATALOG OF EVALUATED SOFTWARE/COURSEWARE)

PURPOSE OF THIS CATALOG

The purpose of this Computer Literacy Catalog of Evaluated Software/ Courseware is to provide instructional personnel with a guide of selected software that has been evaluated by subject are specialists. The software reviewed and evaluated came from a sampling of over 150 software packages in various subject areas that had been requested by the Computer Literacy Training Laboratory.

This catalog is not all inclusive, but fairly representative of the thousands of educational software currently available on the market. Many software packages are being created and added to the market daily. As new, better, and more sophisticated software is made available, it will be reviewed and added to this catalog. The catalog will be continually expanded as teachers and other instructional personnel independent of the Software Review Committee review, evaluate, and recommend additional software for purchase.

The essential purpose and intent of this guide therefore is to: (1) establish the process by which computer software/courseware will be evaluated; (2) set standards by which software will be approved, selected, and recommended for use in the District of Columbia Public Schools.